

AMENDMENTS TO THE SPECIFICATION

Please amend the title as follows:

CONTROL CIRCUIT WITH CASCADED SENSOR BOARDS.

Please amend page 1, paragraph 2 as follows:

DESCRIPTION OF THE RELATED ART

Information processing equipment such as facsimile machines and printers have a variety of sensors and switches incorporated therein. Such sensors ~~includes~~ include sensors that detect the presence and absence of recording paper and an original, and reflection type sensors that detect the positions of moving recording paper. Signals from a large number of sensors and switches mounted at various locations in the equipment are directed to corresponding input terminals of the I/O port over individual wires, and are directed to the CPU via the I/O port.

Please amend page 1, paragraph 3 as follows:

Therefore, a large ~~amount~~ number of cables and wires are used in the equipment and present design problems such as difficulty in routing wires, increasing assembly time, and obstacles to ~~trouble-shooting~~ troubleshooting.

Please amend page 1, paragraph 5 as follows:

An object of the invention is to provide a control circuit in which a minimum number of cables and wires were are used.

Please amend page 1, paragraph 6 as follows:

Another object of the invention is to provide a control circuit in which wires can be routed in a minimum assembly time without difficulty and are not obstacles to ~~trouble~~ troubleshooting.

Please amend paragraph 8, bridging pages 1 and 2 as follows:

The control circuit includes a main control board and a plurality of sensor boards. The plurality of sensor boards are connected in cascade to define a signal path that runs through the plurality of sensor boards. Each of the plurality of sensor boards is connected to a corresponding sensor that detects a status or condition and provides a sensor output of the corresponding sensor to the signal path. The main control board is connected to a first one of the plurality of sensor boards and to a final one of the plurality of sensor boards. When the main control board provides an activation signal to the first one of the plurality of sensor boards, each of the plurality of sensor boards provides the sensor output onto the signal path at a predetermined timing. The sensor boards provide their sensor outputs in the order in which ~~their~~ they are cascaded. The main control board receives the sensor

output at the predetermined timing, the sensor output signal being output in an order in which the plurality of sensors are connected in cascade.

Please amend page 7, paragraph 3 as follows:

The digital sensor board DSB (1) provides its digital sensor output signal DSOUT (1) having a predetermined duration to the main control board 1 through the succeeding digital sensor boards DSB (2)-DSB (N). Then, the digital sensor board DSB(l) then makes the board active signal BACT(1) invalid, i.e., logic level 0, thereby preventing the main control board 1 from receiving the digital sensor output signal DSOUT (1) thereafter. Thereafter, the digital sensor board DSB (1) waits for the next activation signal ACT.

Please amend page 12, paragraph 7 as follows:

(2) The construction requires a ~~less~~ lesser number of wires to be routed in the equipment, reducing electromagnetic noise emission from the wires.

Please amend page 17, paragraph 3 as follows:

Under the control of the R/W Controller 54, on the leading edge of the interruption signal INT,[[]] the output data selector 55 receives the most ~~up-to-date~~ up-to-date train of sensor output signals DSOUT (1)-DSOUT (N) from the memory area C and ~~transfer~~ transfers it to the controller 4.

Please amend page 22, paragraph 7 as follows:

From time T_{2N+3} to time T_{4N+3} , the A/D converter 62 receives the analog sensor output signals ASOUT(1)-ASOUT(N) from the analog sensor board ASB(N). Since the analog sensor output signals ASOUT(1) -ASOUT(N) are analog signals, and therefore the bits 1-4 of the A/D converter generate either high or low levels in accordance with the levels of the analog signals.